

REMARKS

This amendment responds to the Office Action dated February 28, 2002 in which the Examiner rejected claims 7, 9, 12 and 15 under 35 U.S.C. §102(e), rejected claim 7 under 35 U.S.C. §102(a), rejected claims 10 and 16 under 35 U.S.C. §103 and objected to claims 8, 11, 13-14 and 17 as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

As indicated above, claim 16 has been amended to include a period at the end of the claim. It is respectfully requested that the Examiner approves the correction.

Claim 7 claims a method for manufacturing electronic devices obtained by equipping with electronic component chips on a printed circuit board and so forth, comprising the steps of: supplying a plurality of electronic component chips in an aligned relationship; and cleaning outer surfaces of the electronic component chips.

Through the method of the claimed invention supplying a plurality of electronic component chips in an aligned relationship and cleaning outer surfaces of the electronic component chips, as claimed in claim 7, the claimed invention provides a method of manufacturing an electronic device in which reliable electrical connections is provided. The prior art does not show, teach or suggest the invention as claimed in claim 7.

Claims 7, 9, 12 and 15 were rejected under 35 U.S.C. §102(e) as being anticipated by *Mok* (U.S. Patent No. 6,343,975).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §102(e). The claims have been reviewed in light of the Office Action, and for

reasons which will be set forth below, it is respectfully requested that the Examiner withdraws the rejection to the claims and allows the claims to issue.

Applicants respectfully point out to the Examiner that the present application is a divisional of prior application 09/401,526 originally filed on September 22, 1999. Therefore, the U.S. filing date of the present application is prior to the U.S. filing date of *Mok*. Therefore, it is respectfully submitted that *Mok* is not a proper reference. It is therefore respectfully requested that the Examiner withdraws the rejection to claims 7, 9, 12 and 15 under 35 U.S.C. §102(e).

Claim 7 was rejected under 35 U.S.C. §102(a) as being anticipated by prior art Figure 7.

Applicants respectfully traverse the Examiner's rejection of the claim under 35 U.S.C. §102(a). The claim has been reviewed in light of the Office Action, and for reasons which will be set forth below, it is respectfully requested that the Examiner withdraws the rejection to the claim and allows the claim to issue.

Referring to Fig. 7, a conventional electronic component feeder will be generally described. An electronic component feeder 51 comprises a hopper 52, a buffer portion 53, and a chute portion 54. The hopper 52 has a volume capable of accommodating numerous electronic component chips with a supplying inlet 52a for electronic component chips formed in the upper portion thereof. In the bottom end of the hopper 52, a discharge outlet 52b for discharging electronic component chips one by one is formed. A large number of electronic component chips supplied through the supplying inlet 52a at random is stored in the hopper 52. The hopper 52 is formed to be vibrated by connecting a vibrating source

(not shown) thereto to thereby vibrate the hopper 52 so that electronic component chips are discharged one at a time from the discharge outlet 52b. On the other hand, a pipe 55 is connected to the discharge outlet 52b. The pipe 55 extends from the discharge outlet 52b of the hopper 52 toward the chute portion 54 side. The cross-section of the pipe 55 is to be in a shape suitable for transferring the one electronic component chip. A sucking device (not shown) is connected to the topside of the pipe 55 to thereby transfer electronic component chips toward the top of the pipe 55 by sucking. The pipe 55 is formed of the buffer portion 53 and the chute portion 54. That is, the buffer portion 53 is equipped so as to align supplied electronic components to enable them to feed with constant timing. The pipe 55 has a length to some extent, so that plural electronic component chips supplied to the pipe 55 from the hopper 52 are transferred to the chute portion 54 side at constant spaces in a manner that electronic component chips in front of the pipe are pushed by electronic component chips in the rear during passing through the pipe 55. On the other hand, the chute portion 54 is formed of the top portion of the pipe 55, so that aligned electronic component chips are taken out one at a time from a top opening 55a of the pipe 55. In the conventional electronic component chip feeder 51, numerous electronic component chips supplied into the hopper 52 at random are fed one at a time to the discharge outlet 52b colliding with one another in the hopper 52 by the applied vibration, as described above. Since the buffer portion 53 is formed of the pipe 55 having a length to some extent, front and rear electronic component chips collide with each other during passing through the pipe 55.

Thus, prior art Figure 7 merely discloses a hopper 52, a buffer portion 53 and a chute portion 54, wherein the buffer portion 53 is equipped so as to align supplied electronic components to enable them to feed with constant timing. Thus nothing in prior art Figure 7, shows, teaches or suggests cleaning the outer surfaces of the electronic components chips as claimed in claim 7. Rather, prior art Figure 7 merely discloses aligning the chips in the buffer portion 53.

Since nothing in prior art Figure 7 shows, teaches or suggests cleaning outer surfaces of the electronic component chip as claimed in claim 7, it is respectfully requested that the Examiner withdraws the rejection to claim 7 under 35 U.S.C. §102(a).

Claims 10 and 16 were rejected under 35 U.S.C. §103 as being unpatentable over *Mok* in view of *White* (U.S. Patent No. 6,241,583).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, it is respectfully requested that the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, *Mok* is not a proper reference since its U.S. filing date of *Mok* is after the U.S. filing date of the present application. Therefore, even if combined with *White*, the rejection is not proper. Therefore, it is respectfully requested that the Examiner withdraws the rejection to claims 10 and 16 under 35 U.S.C. §103.

Since claims 8, 11, 13-14 and 17 depend from allowable claims, it is respectfully requested that the Examiner withdraws the objection thereto.

The prior art of record, which is not relied upon, is acknowledged. The references taken singularly or in combination do not anticipate or make obvious the claimed invention.

Thus it now appears that the application is condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason Examiner feels that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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Mark-Up of Claim 16

16. (Amended) A method according to Claim 10, wherein said step of cleaning outer surfaces of the electronic component chips is performed by washing outer surfaces of electronic component chips using a washing liquid.